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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,911	05/05/2005	Christian Pfau	49-001-TN	9695

23400 7590 01/30/2007
POSZ LAW GROUP, PLC
12040 SOUTH LAKES DRIVE
SUITE 101
RESTON, VA 20191

EXAMINER

LEUNG, PHILIP H

ART UNIT	PAPER NUMBER
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3742

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/533,911	Applicant(s) PFAU, CHRISTIAN	
	Examiner Philip H. Leung	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Goudeau et al (US 5,848,093) (previously).

The structure of the broadly worded claim only includes a heating device with a gas suction device that is clearly met by Goudeau as it shows an induction heating coil 6 and a suction system (adjacent 15, 19 and col. 3, lines 35-40) (see Figures 1 and 2 and col. 3, line 32 – col. 4, line 7). The claimed “shrinking device for shrinking a tool into a tool holder of a tool chuck” is only an intended use and adds little patentability weights to the claimed structure as the claimed structure does not include any positive structure to carrying out the function of “shrinking device”.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-14 and 16-18 are rejected under 35 U.S.C. 103(a) as being obvious over Rabe (US 2001/0024020 A1), in view of Hitachi (JP 1-109029) or Hosoi et al (US 5,356,245) (all previously cited).

Rabe shows a shrinking device, for shrinking a tool into a tool holder of a tool chuck, the shrinking device comprising: a heating device 28 for heating the tool holder (10,a, 10b, 10c) and a gas blowing device 22 for blowing gases from the tool holder. Therefore, Rabe shows every feature except that it uses an air blowing device instead of a gas suction device. However, such is seen as a matter of engineering expediency to use either a suction located on the top of the tool holder or a blowing device from the bottom of the tool holder. Anyway, Hitachi shows a shrinking device with a heater and a vacuum generator through a vacuum pad 42 so as to vacuum suck the heated rotor 3 (see Figures 1-3 and the English abstract). Hosoi shows a machine tool with a blowing pipe 28 and a sucking pipe 31 connected to an inlet opening for sucking cutting chips and harmful gas (see Figures 1, 2 and 7 and col. 4, line 62 – col. 6, line 14). It would have been obvious to an ordinary skill in the art at the time of invention to modify Rabe to use a suction device for sucking the gas blew out by the blowing fan 22 to remove the harmful debris and gas to prevent contamination of the environment, in view of the teaching of Hitachi or Hosoi. In regard to claims 10-13, the guiding sleeve 25 is the claimed shielding element. The exact gas circulation arrangement would have been a matter of engineering expediency depending on overall structure of the shrinking device. In regard to claim 16, Rabe shows a fan 22. It is well known that a fan may be used for sucking air or blowing air. In regard to claim, 17, the use of an air cleaning device is well known in ventilating device as the cleaning device is

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nothing more than a filter. In regard to claim 18, the heating device 5 and air fan 22 are connectingly supported with the use of a turntable 3.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being obvious over Rabe (US 2001/0024020 A1), in view of Hitachi (JP 1-109029) or Hosoi et al (US 5,356,245), as applied to claims 1-14 and 16-18 above, and further in view of Voss et al (US 2001/0042295 A1) (previously cited by the applicant).

As set forth above, Rabe combined with Hitachi or Hosoi above shows every feature and structure as claimed except for the use of a measuring device for measuring the tool. However, such a measuring device in a shrinking device is well known as shown by Voss (see elements 40 and 50 in Figures 3-5) and paragraphs [0037] – [0049]). It would have been further obvious to an ordinary skill in the art at the time of invention to modify Rabe combined with Hitachi or Hosoi to use a use a measurement for monitoring the tool during the shrinking process for better tool shrinking control and result, in view of the teaching of Voss.

6. Applicant's arguments filed 11-13-2006 have been fully considered but they are not persuasive. Firstly, Applicant's arguments with respect to claim 15 have been considered but are moot in view of the new ground(s) of rejection. Furthermore, the argument “the term shrinking device clearly defines a positive structure of the invention, to clearly delimit the scope” is not well taken as the broadly worded invention as recited in claim 1 is merely a heating device with a gas suction device. As set forth previously, the “shrinking device” in the preamble is a mere intended use without any structure to limit the same for only shrinking purpose. Any heating

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device with a gas suction device anticipates the same. In regard to the 103 rejection, it is clear that the basic invention is shown by Rabe. Rabe only differs in the use of the gas blowing device instead of a gas suction device as claimed for evacuating the gas from the shrinking device. However, it is obvious to an ordinary skill in the art that there are two ways to evacuate the gas, either by blowing it or by vacuum. To use a vacuum for sucking gas in a tool device is old in the art as shown by Hosoi or Hitachi, to use either a vacuum or blower in Rabe would have been a mere choice in view of the secondary references. For instance, Hosoi clearly teaches that the use of a sucking pipe in order for "sucking cutting chips and poisonous gas" (see the abstract and col. 3, lines 46-48 and col. 5, line 64 – col. 6, line 14). In view of this explicit teaching, one of ordinary skill in the art would be motivated to use a sucking device instead of and in addition to the blowing device in Rabe in order to improve the work environment which is the same aim of the claimed invention.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

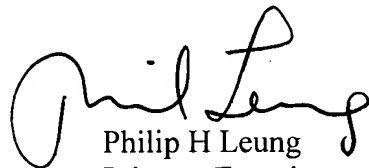
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip H. Leung whose telephone number is (571) 272-4782.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571)-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "Philip H. Leung". The signature is fluid and cursive, with a large initial "P" and "L".

Philip H Leung
Primary Examiner
Art Unit 3742

P.Leung/pl
1-19-2007